

The reason of hydrogen atom producing ionization energy

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Abstract: Why does hydrogen atom produce ionization energy? Here we can find an answer that looks very simple or very pleasing.

Key words: Hydrogen atom, ionization energy, Maxwell equations, gravitational constant.

Why does hydrogen atom produce ionization energy? Because the space-time structure of our universe is like this.

$$\begin{aligned}\frac{(h)(R_{\infty})(c)}{(e_0)} &= 13.6 \\&= (\mu_0)(R_{\infty}) = \frac{(2\pi)(i)(\varphi_E)}{(4\pi)(R_{\infty})(\varphi_B)} \\&= \frac{(2\pi)(i)(\varphi_E)}{(4\pi)(R_{\infty})^2(\varphi_B)} * (R_{\infty}) \\&= \frac{(2\pi)(i)(\varphi_E)}{(4\pi)(R_{\infty})^2(\varphi_B)} * \frac{(2\pi)(a_0)^2}{(m_{\text{atom}})} \\&= \frac{(2\pi)(i)(\varphi_E)}{(4\pi)^2(R_{\infty})^2(\varphi_B)} * \frac{(4\pi)(2\pi)(a_0)^2}{(m_{\text{atom}})} \\&= \frac{1}{(\varepsilon_0)(4\pi)} \frac{1}{(c)^2} * (G_N) \frac{1}{(c)^2} \frac{(c)}{(m_{\text{atom}})} \\&= \frac{1}{(\varepsilon_0)(4\pi)} \frac{1}{(c)^2} * (G_N) \frac{(4\pi)}{(2\pi)^2(e_0)} \\&= \frac{(a_0)^2(c)^2}{(R_{\infty})^2(e_0)} = \frac{(\nabla \cdot \mathbf{B})}{(2\pi)(\varphi_E)} * \frac{(\nabla \cdot \mathbf{D})}{(2\pi)(\varphi_C)} \frac{1}{(4\pi)(e_0)}.\end{aligned}$$

Due to $(\varphi_B) = (e_0)$, $(\varphi_C) = (m_{\text{atom}})$, $(i) * (\varphi_D) = (c) * (\varphi_C)$,

Therefore, the reason for hydrogen atom to produce ionization energy is $\frac{(a_0)^2(c)^2}{(R_{\infty})^2}$,

so you can regard the reason for hydrogen atom to produce ionization energy as the "coupling effect" of electromagnetism and gravity, and this effect is very natural.

It is equivalent to $\frac{1}{(\varepsilon_0)(4\pi)} \frac{1}{(c)^2} * (G_N) \frac{(4\pi)}{(2\pi)^2} = \frac{(G_N)^2}{(2\pi)^2(4\pi)^2(R_{\infty})^2(a_0)^2}$.

Reference: <https://doi.org/10.5281/zenodo.7741525>.